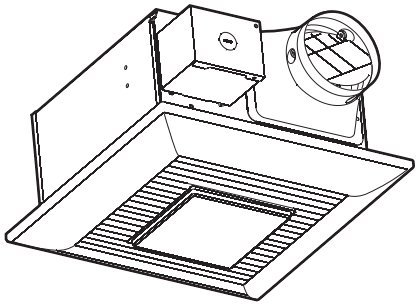
Panasonic

# INSTALLATION INSTRUCTIONS

## Ventilating Fan

Model No. FV-08-11VFL5



FV-08-11VFL5

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## READ AND SAVE THESE INSTRUCTIONS

Thank you for purchasing this Panasonic product.
Please read these instructions carefully before attempting to install, operate or service the Panasonic product. Failure to comply with instructions could result in personal injury or property damage. Please explain to users how to operate and maintain the product after installation, and this booklet should be presented to users.
Please retain this booklet for future reference.

# GENERAL SAFETY INFORMATION

## For Your Safety

To reduce the risk of injury, loss of life, electric shock, fire, malfunction, and damage to equipment or property, always observe the following safety precautions.

### Explanation of symbol word panels

The following symbol word panels are used to classify and describe the level of hazard, injury, and property damage caused when the denotation is disregarded and improper use is performed.

**⚠ WARNING** — Denotes a potential hazard that could result in serious injury or death.

**⚠ CAUTION** — Denotes a hazard that could result in minor injury.

The following symbols are used to classify and describe the type of instructions to be observed.

| | |
|---|---|
| | This symbol is used to alert users to a specific operating procedure that must be followed in order to operate the unit safely. |
| | This symbol is used to alert users to a specific operating procedure that must not be performed. |
| | This symbol is used to alert users not to disassemble the equipment. |
| | This symbol is used to alert users to make sure of grounding when using the equipment with the grounding terminal. |

## ⚠ WARNING

To reduce the risk of fire, electric shock or injury to persons, observe the following :

- Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and the local code authorities.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Ducted fans must always be vented to the outdoors.
- If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.

# WARNING

- This model is UL listed for tub and shower enclosures.
- USA only: This product has two fluorescent lamps that contain mercury. Disposal may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities or visit Panasonic website: http://www.panasonic.com/environmental or call 1-888-769-0149.
- Canada only: Not to be installed in a ceiling thermally insulated to a value greater than R40.
- Do not disassemble the unit for reconstruction. It may cause fire or electric shock.
- A statement to the effect that when the product is to no longer be used, it must not be left in place but remove, to prevent it from possibly falling.
- Ceiling joist must be subjected to static load more than five times the weight of the product.
- Do not install with a method which is not approved in the instructions.
- Do not use this fan with any solid-state speed control device. Solid state controls may cause harmonic distortion which can cause motor humming noise.
- This product must be properly grounded.

# CAUTION

- Do not install this ventilating fan where interior room temperature may exceed 104°F(40°C).
- Make sure that the electric service supply voltage is AC 120V, 60Hz.
- Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupation Safety and Health Act (OSHA).
- Always disconnect the power source before working on or near the fan, motor, light fixture or junction box.
- Protect the supply wiring from sharp edges, oil, grease, hot surfaces, chemicals or other objects.
- Do not kink the supply wiring.
- Provide make up air for proper ventilation.
- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- Do not install the unit where ducts are configured as shown in Fig.A.
- Not for use in cooking area. (Fig.B)
- The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.

Fig. A

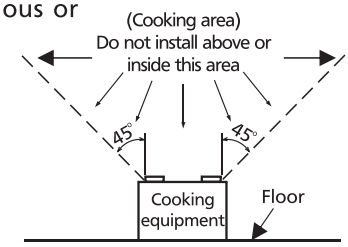



Fig. B

# DESCRIPTION

The Panasonic ventilating fan model is listed by UL under UL file No. E78414.
The Panasonic ventilating fan model uses a sirocco Blower driven by a capacitor motor.
The motor is designed to have an extended service life with reduced energy consumption.
It also incorporates a thermal-cutoff for safety. The grille covering the fan body is a spring-loaded, quick remove type. A damper for preventing air counterflow is provided. The blower uses a high-capacity sirocco fan developed to reduce the noise level.
This product has two speeds. “80” is low airflow and "110" is high airflow.
The lighting unit is an energy-saving, lighting device that uses two 13W fluorescent lamps and produces almost the same illumination as a standard 100W incandescent lamp.

FCC Note: This equipment contains two self-ballast fluorescent lamp and is in compliance with Part 18 of the FCC Rules as consumer RF lighting device. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this product on and off, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect equipment into outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

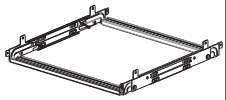
Warning: This equipment must be installed in accordance with installation instructions. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 18 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: Panasonic Corporation of North America
Two Riverfront Plaza, Newark, NJ 07102
Customer Support: 1-866-292-7299

# UNPACKING

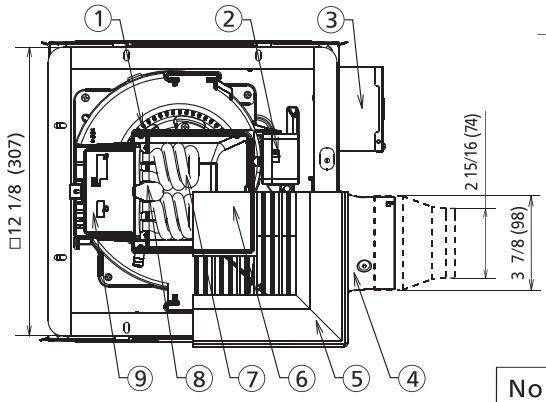
Unpack and carefully remove the unit from carton.
Refer to the supplied accessories list to verify that all parts are present.

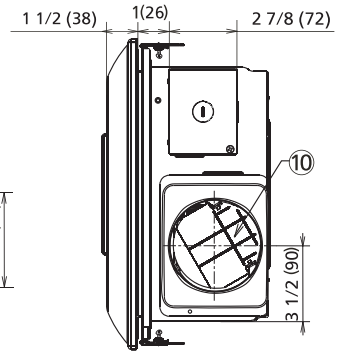
# SUPPLIED ACCESSORIES

| Part name | Appearance | Quantity |
|---|---|---|
| Grille | | 1 |
| Flex-Z Fast™ bracket (with 4 tapping screw-ST4.2X20) |  | 1 |
| Self-drilling screw | | 4 |

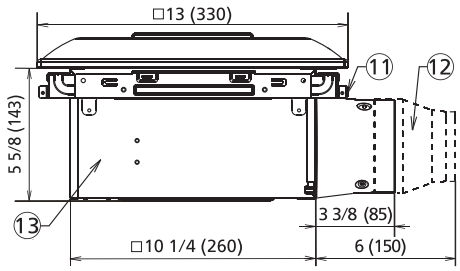
| Part name | Appearance | Quantity |
|---|---|---|
| Installation instructions | | 2 |
| Warranty sheet | | 1 |
| 13W Flourescent lamp | | 2 |
| 4W Night light | | 1 |
| 3 inch adaptor connector (optional part) | | 1 |

# DIMENSIONS



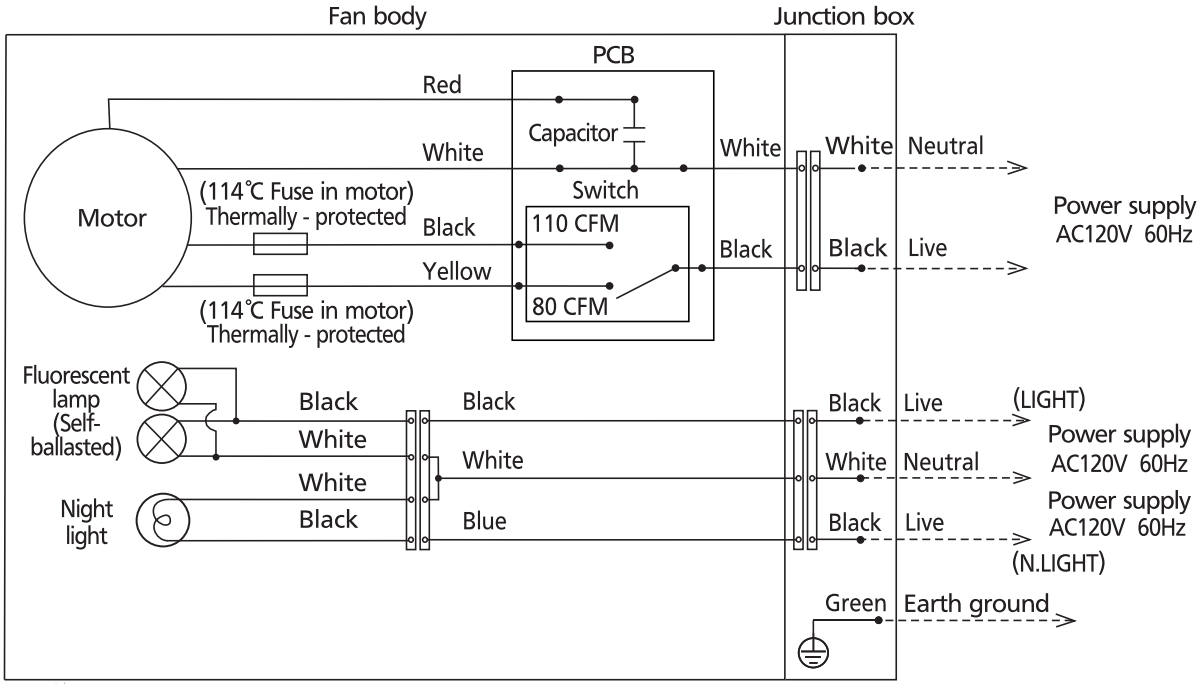




Unit: inches (mm)




| No. | Part name | No. | Part name |
|---|---|---|---|
| ① | Blade | ⑧ | Night light |
| ② | Pick-A-Flow switch | ⑨ | Lighting unit |
| ③ | Junction box | ⑩ | Damper |
| ④ | Adaptor | ⑪ | Flex-Z Fast™ bracket |
| ⑤ | Grille | ⑫ | Adaptor connector |
| ⑥ | Lens | ⑬ | Fan body |
| ⑦ | Fluorescent lamp | | |

# WIRING DIAGRAM

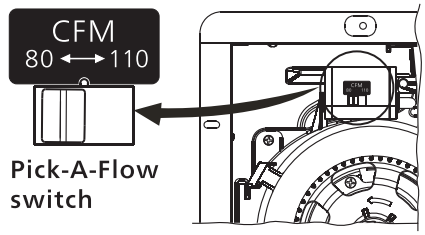



# FEATURE

## Pick-A-Flow Feature

This product comes with Pick-A-Flow speed option. The Pick-A-Flow switch on the surface of the product allows the option to choose 80-110 CFM.

| Air volume options | | Factory setting |
|---|---|---|
| 80 CFM | 110 CFM | 80 CFM |



# INSTALLATION (NEW CONSTRUCTION)

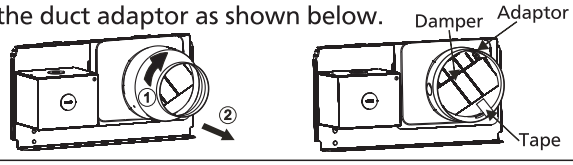
**The fan position between joists from 16" to 24" on center can be adjusted flexibly.**

## CAUTION

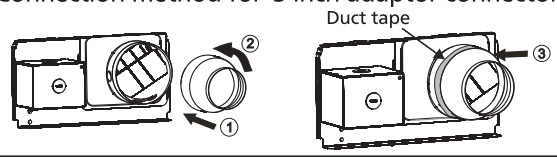
Please wear gloves to protect hands during the installation as follow.

1. Remove the junction box and duct adaptor from the fan housing before installing the fan. Remove the machine screw (M4X6) and disconnect the electrical molex cable by pinching the tabs to insure the junction box and adaptor clear the fan housing when sliding the adaptor off the housing. (Fig.1)

IMPORTANT:
Please remove the tape, which protects the damper during shipping and installation, from the duct adaptor as shown below.




Connection method for 3 inch adaptor connector




2. Bend down 4 tabs for positioning; install the Flex-Z Fast™ bracket to joists by using the 2 pre-installed tapping screws. (Fig.2)
3. Adjust the length of Flex-Z Fast™ bracket to fit the spacing between joists; fix the Flex-Z Fast™ bracket with the other two pre-installed tapping screws. (Fig.3)
4. Remove junction box cover and secure conduit or stress relief to junction box knock-out hole. (Fig.4)
5. Install the circular exhaust duct and secure it with clamps, or ties and seal it with mastic or approved foil tape. (Fig.4)
6. Install the adaptor to Flex-Z Fast™ bracket by using 2 self-drilling screws. (Fig.4)
7. Refer to wiring diagram on page 5. Follow all the local electrical safety codes as well as the National Electrical Code (NEC). Using UL approved wire nuts, connect house power wires to ventilating fan wires. (Fig.5)

## CAUTION

Mount junction box cover carefully so that lead wires are not pinched.

Insure the junction box cover encloses all the wires and is completely flush before locking in place with the attached screw.

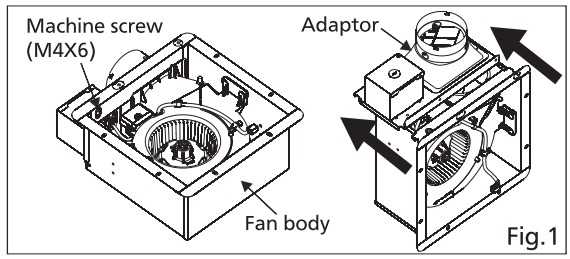


Fig.1

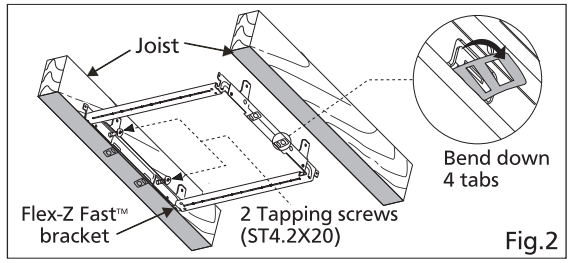


Fig.2

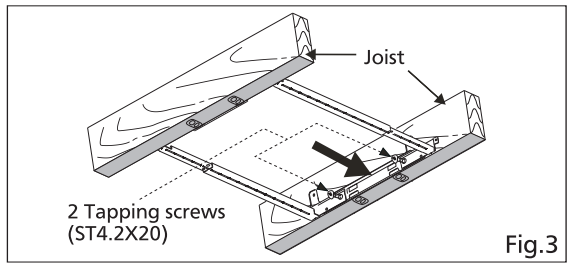


Fig.3

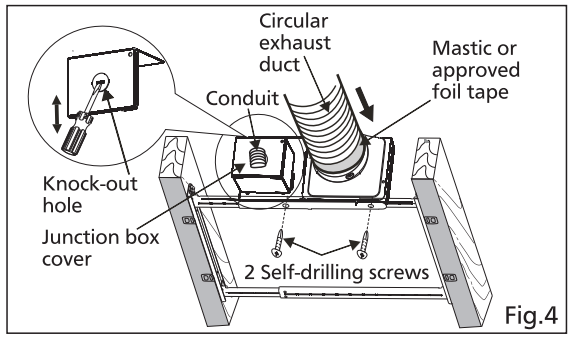


Fig.4

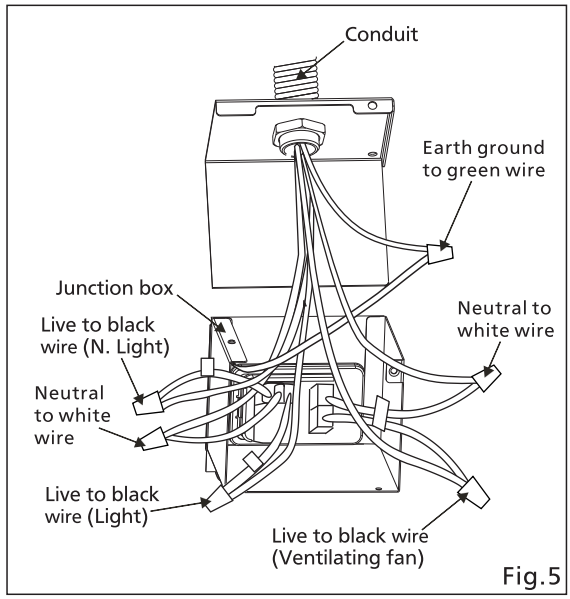


Fig.5

8. Insert fan body and slide into adaptor assembly until the flange overlaps the Flex-Z Fast™ bracket. Secure the fan body to Flex-Z Fast™ bracket by using 2 self-drilling screws, plug connector to receptacle and secure the fan body to adaptor by using machine screw (M4X6). (Fig.6)

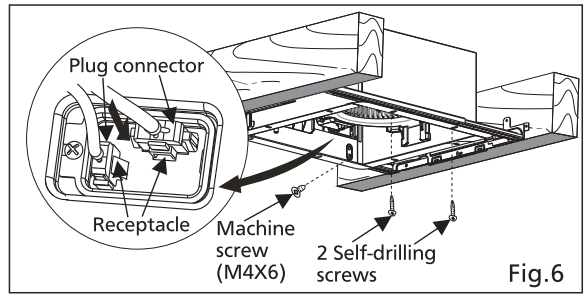
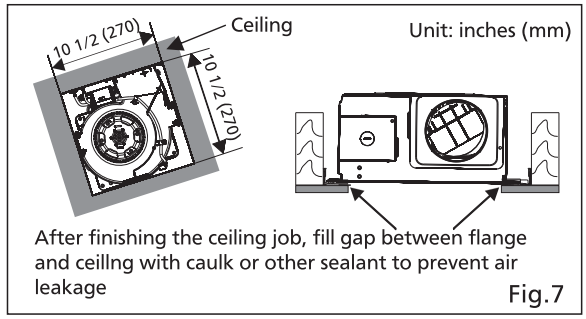


Fig.6

**CAUTION**

- Secure the duct adaptor to the fan housing with the machine screw (M4X6) by re-inserting and carefully screwing the adaptor to the housing. Please insure the screw is appropriately placed so it does not strip the teeth nor come in contact with the Flex-Z Fast™ bracket.

9. Finish ceiling work. Ceiling hole should be aligned with the inside edge of the flange. (Fig.7)



After finishing the ceiling job, fill gap between flange and ceillng with caulk or other sealant to prevent air leakage
Fig.7

10. Remove the tapes from the louver and springs before installing the grille to the fan. Remove screw (M4X8) and light cover. (Fig.8)
11. Install the night light and fluorescent lamps. (Fig.9)
12. Install light cover. (Fig.10)
13. Insert the grille mounting spring on the wiring side into the slot and insert the plug connector into the housing of the lighting unit. (Fig.11)

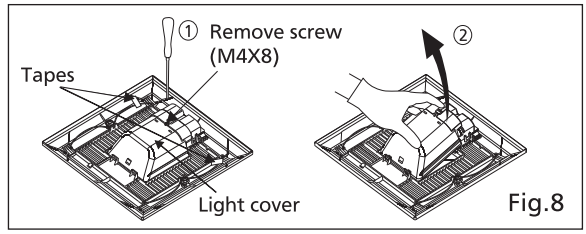


Fig.8

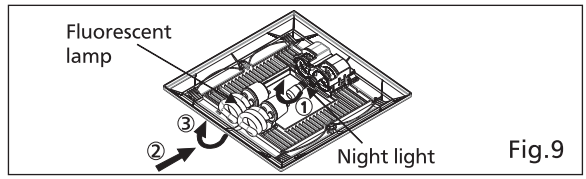


Fig.9

**CAUTION**

- Before turning on the light, insure the connector is at the correct position. If not, the light will not work. (Fig.11)
- The claw of connector must latch the rib completely.

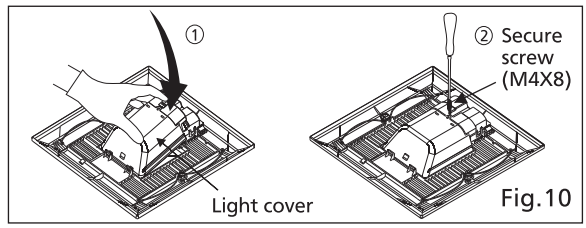


Fig.10

14. Select the air volume speed by adjusting the switch. Factory setting is "80" position, sliding "110" is high airflow position. (Fig.11)

**CAUTION**

- Make sure the switch is not set at the middle position; otherwise the fan will not function. (Fig.11)

15. Insert the other mounting spring into the slot as shown and mount grille to fan body. (Fig.12)

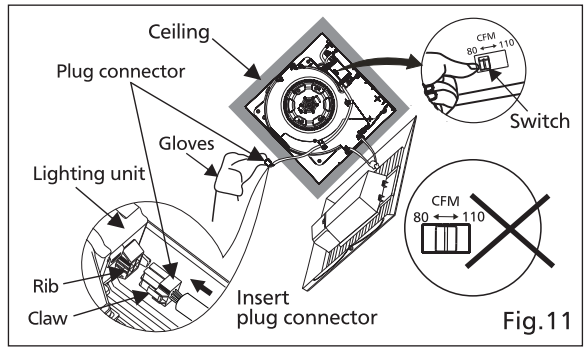


Fig.11

**CAUTION**

- Mount grille carefully so that lead wire of lighting unit is not pinched.

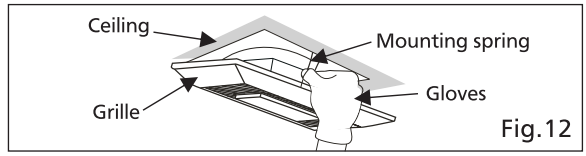


Fig.12

## WARNING

Disconnect power source before working on unit.

1. Remove the existing fan and cut ceiling opening. Install the Flex-Z Fast™ bracket to joists by using the 4 pre-installed tapping screws (ST4.2x20). Leave existing ductwork and wiring in place. (Fig.13)

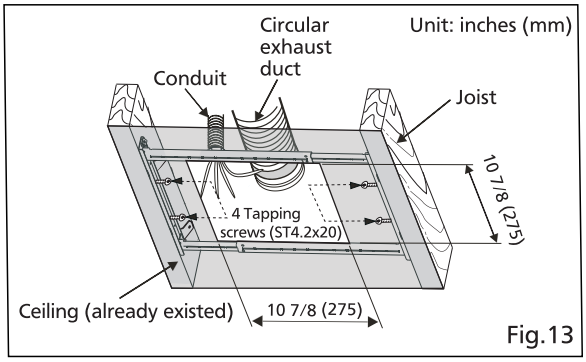


Fig.13

2. Follow the step 1, 4, 5, 7 on page 6. (Before connect the circular exhaust duct to the adaptor, pull down the circular duct from the ceiling.)

3. Install the adaptor to Flex-Z Fast™ bracket by using 2 self-drilling screws. (Fig.14)

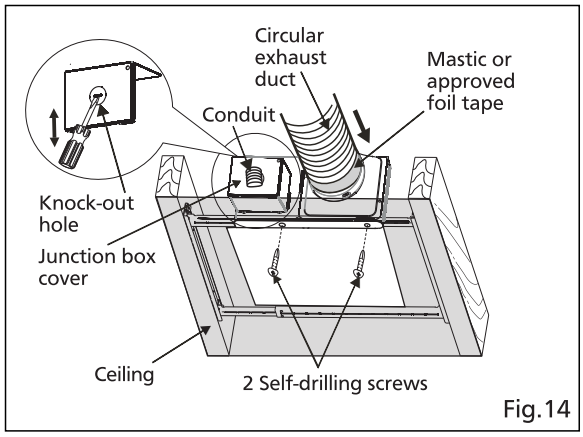


Fig.14

4. Secure the fan body to Flex-Z Fast™ bracket by using 2 self-drilling screws, plug connector to receptacle and secure the fan body to adaptor by using machine screw (M4X6). (Fig.15)

## CAUTION

Secure the duct adaptor to the fan housing with the machine screw (M4X6) by re-inserting and carefully screwing the adaptor to the housing. Please insure the screw is appropriately placed so it does not strip the teeth nor come in contact with the Flex-Z Fast™ bracket.

5. Follow the step 10 to 15 on page 7 .

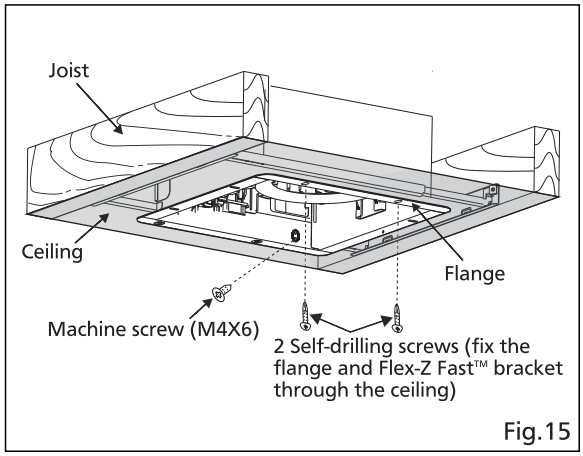


Fig.15

# MAINTENANCE I (CLEANING)

## ⚠ WARNING

Disconnect power source before working on unit.

## ⚠ CAUTION

Routine maintenance must be done every year.
Please wear gloves during the cleaning work.

Never use gasoline, benzene, thinner or any other such chemicals for cleaning the ventilating fan.

Do not immerse motor in water when cleaning.
Do not soak resin parts in water over 140˚F (60˚C).

1. Clean grille. (Don't put into hot water. Use non-abrasive kitchen detergent, wipe dry with clean cloth.)(Fig.16)

2. The grille should be dry after cleaning.

3. Remove dust and dirt from fan body using a vacuum cleaner.(Fig.17)

4. Using a cloth dampened with kitchen detergent, remove any dirt from fan body. Wipe dry with clean cloth. (Fig.18)

5. Reinstall grille.

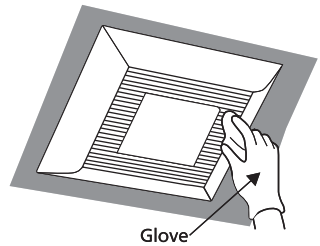


Fig.16

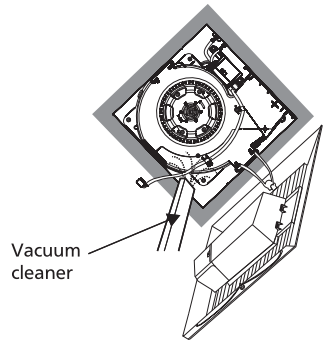


Fig.17

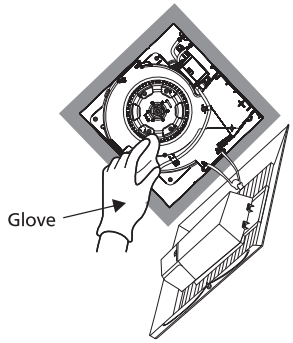


Fig.18

# MAINTENANCE II (REPLACEMENT OF LAMP)

## ⚠ WARNING

- Disconnect power source before working on unit.
- This is a pin type lamp base and the lamp's glass is fragile. To remove, pull out carefully.
- 4W night lamp has threaded base. Remove by turning counterclockwise.
- Make sure the temperature of lens and lighting unit has cooled down before maintenance (cleaning) or replacement of lamp.

## ⚠ CAUTION

- Remove dust and dirt from light cover and lens, before replace the lamps.

1. Remove grille by pulling down one mounting spring. Remove plug connector then pull down the other mounting spring.
   (Squeeze mounting spring and pull down carefully)
   (Fig.19)

2. Remove the screw as shown in step ① of Fig.20. Remove the light cover as shown in step ② of Fig.20 .

3. Replace the fluorescent lamps (Please use Maxlite MLS13GU35 13W) as shown in step ① and step ② of Fig.21.

4. Replace the 4W night light (Please use ST18 bulb, Max 4W). (Fig.21)
   Install the fluorescent lamps (Please use Maxlite MLS13GU35 13W) as shown in step ② and step ③ of Fig.9 (page 7).

5. Install light cover. (Fig.10 of page 7)

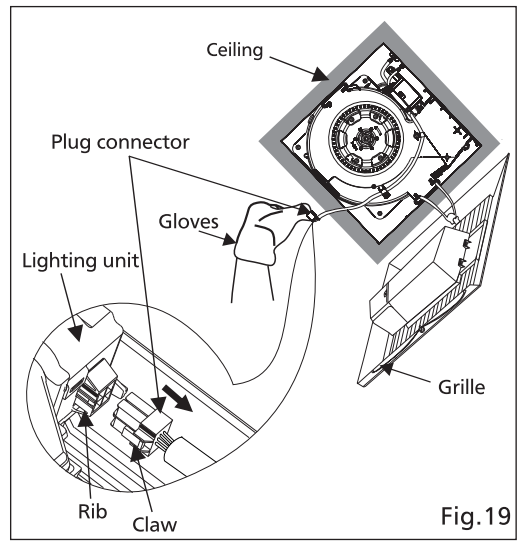


Fig.19

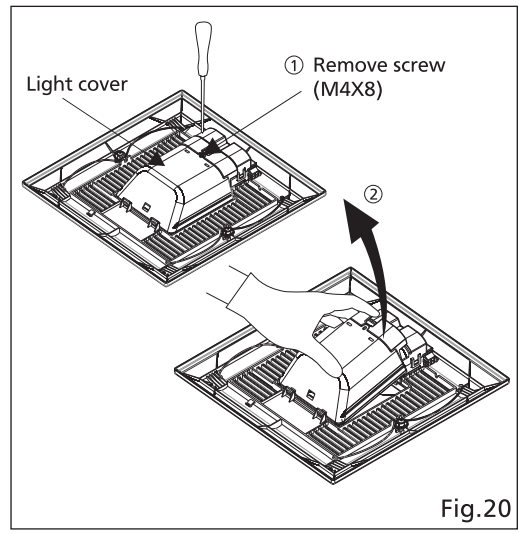


Fig.20

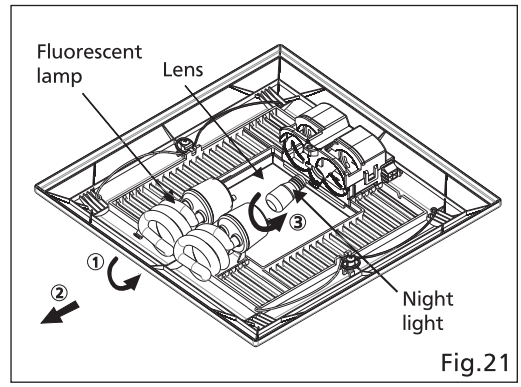
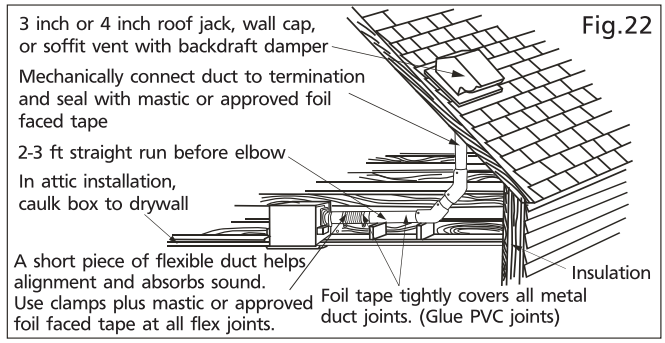


Fig.21

# PRACTICAL GUIDE TO INSTALLATION


3 inch or 4 inch roof jack, wall cap, or soffit vent with backdraft damper
Mechanically connect duct to termination and seal with mastic or approved foil faced tape
2-3 ft straight run before elbow
In attic installation, caulk box to drywall
A short piece of flexible duct helps alignment and absorbs sound. Use clamps plus mastic or approved foil faced tape at all flex joints.
Foil tape tightly covers all metal duct joints. (Glue PVC joints)
Insulation
Fig.22

Properly insulate the area around the fan to minimize building heat loss and gain. (Fig.22) Loose fill or batt insulation can be placed directly over the fan housing in the attic. Our fans and fan/light combination units do not create excessive heat that is a common problem with recessed light fixtures or some competitor's fan/light combination. Our efficient, cool-running motors and our fluorescent lamps do not create enough ambient heat to be subjected to these limitations. The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

# SPECIFICATIONS

| Model No. | Air direction | Voltage (V) | Frequency (Hz) | Duct diameter (inches) | Air volume at 0.1"WG (CFM) | Noise (sones) | Speed (rpm) | Power (W) | | | Weight lb. (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Fan | Lighting unit | | |
| | | | | | | | | | Fluorescent lamp | Night light | |
| FV-08-11VFL5 | Exhaust | 120 | 60 | 3 | 70 | 0.6 | 1036 | 20.8 | 2X13 | 4 | 10.4(4.7) |
| | | | | | 100 | 1.3 | 1246 | 26.4 | | | |
| | | | | 4 | 80 | 0.4 | 890 | 20.9 | | | |
| | | | | | 110 | 1.0 | 1015 | 26.6 | | | |

HVI Certified performance based on HVI Procedures 915, 916, and 920.

## PRODUCT SERVICE

Warning Concerning Removal of Covers.
The unit should be serviced by qualified technicians only.
Your product is designed and manufactured to ensure a minimum of maintenance.
Should your unit require service or parts, call Panasonic Call Center at 1-866-292-7299 (USA) or 1-800-669-5165 (Canada).

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